# State of New Mexico
# LEGISLATIVE EDUCATION STUDY COMMITTEE



State Capitol North, 325 Don Gaspar, Suite 200
Santa Fe, New Mexico 87501
PH: (505) 986-4591 FAX: (505) 986-4338
http://legis.state.nm.us/lcs/lesc/lescdefault.asp



August 15, 2007

## MEMORANDUM

**TO:** Legislative Education Study Committee

**FR:** Kathleen Forrer K.F.

**RE:** **STAFF REPORT: CAREER CLUSTERS**

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> There are wide gaps between the skills that businesses value and the skills most graduates actually have. For example, 80 percent of employers in the fastest-growing industries assess writing as part of the hiring process, according to a 2004 report of the National Commission on Writing in America's Schools and Colleges. Yet more than 75 percent of 12th graders are not proficient in writing, according to the 2002 NAEP.
>
> – Partnership for 21st Century Skills (March 2006)

On January 22, 2004, Governor Richardson issued an executive order creating the New Mexico Office of Workforce Training and Development and directing the State Workforce Development Board to appoint a coordination oversight committee. The committee was charged with developing proposals to facilitate "a career pathways culture." Under the chairmanship of Ms. Terri Cole, President and CEO of the Greater Albuquerque Chamber of Commerce, the 18-member Governor's Workforce Coordination and Oversight Committee identified seven New Mexico-specific career clusters, developed in conjunction with the Public Education Department (PED) and with industry leaders.[1] (See Attachment 1 for a list of committee members.)

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[1] The seven New Mexico-specific career clusters are: Arts and Entertainment; Business Services; Communications and Information; Energy and Environmental Technologies; Engineering, Construction, Manufacturing, and Agriculture; Health and Biosciences; and Hospitality and Tourism.

## Terminology

Like most areas of education, career and technical education (CTE) has a vocabulary all its own. Among the terms used most frequently by practitioners at both the federal and state levels are the following:

- Career Academy: A school-within-a-school that focuses on career preparation. Career academies provide a 3- to 4-year program which focuses student learning on a specific industry and career cluster (e.g., health, electronics, business). In career academies, each student takes a core of academic courses, and receives workplace exposure and career counseling, all of which integrate occupational and academic material based on an occupational theme.

- Career and Technical Education: The federal *Carl D. Perkins Career and Technical Education Improvement Act of 2006* (Perkins IV) defines career and technical education as "organized educational activities" that offer a sequence of courses that includes "coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions; and [that] provides technical skill proficiency, an industry-recognized credential, a certificate, or an associate degree."

- Career Cluster: A career cluster is a grouping of occupations from one or more industries that share common skill requirements. Career Clusters provide a way for schools to organize instruction and student experiences around broad categories that encompass virtually all occupations from entry through professional levels.

- Career Pathway: A career pathway is an area of concentration within a career cluster. Each pathway contains a group of careers requiring similar academic and technical skills as well as similar industry certifications or postsecondary education.

- Program of Study: As defined by Perkins IV, a program of study identifies options for students to use when planning coursework and other education activities that lead to a career pathway. A program of study specifies secondary and postsecondary courses, includes academic and CTE content in a coordinated, non-duplicative progression of courses, dual-credit opportunities, and industry-recognized credentials or associate or baccalaureate degree goals.

## Selected Federal Legislation and the States' Career Clusters Initiative

### *Selected Federal Legislation*[2]

Federal legislation in support of vocational education, now called career and technical education, is not new. The *Morrill Act of 1862*, also known as the *Land Grant College Act*, gave every state that had remained in the Union a grant of 30,000 acres of public land for every member of its congressional delegation. The states were to sell this land and use the proceeds to establish colleges in engineering, agriculture, and military science. A second *Morrill Act* in 1890

[2] Sources include the Congressional Research Service 2005 report to Congress, *The Carl D. Perkins Vocational and Technical Education Act of 1998: Background and Implementation*; the 2004 USDE *National Assessment of Vocational Education: Final Report to Congress*; and *The History of Career Clusters* (2006) by Katherine Ruffing.

extended the land grant provisions to the 16 southern states. There is now at least one land-grant institution in every state and territory of the United States, as well as the District of Columbia.

Although the Morrill acts represent the first effort by the federal government to ensure vocational education, it was not until the *Smith-Hughes Act* was enacted in 1917 that federal funding for American vocational education was established. This act specified particular vocational programs, created administrative procedures, and prescribed skills-based training programs for instruction in agriculture, trade and industries, and home economics. This aid was extended in the *George-Deen Act* (1936) to include teacher education and training for certain other occupations, including marketing. But the act also permitted Congress to re-determine the amount appropriated each year.

The 1963 *Vocational Education Act* increased federal support for vocational education schools and also provided funding for vocational work-study programs and research, training, and demonstration programs related to vocational education. Five years later, the Vocational Education Amendments of 1968 modified the existing vocational education programs, established a National Advisory Council on Vocational Education, and provided funding for collecting and disseminating information about programs administered by the Commissioner of Education.

In 1984, the *Vocational Education Act* was renamed the *Carl D. Perkins Vocational Education Act* (Perkins I). Perkins I continued federal support for vocational education, established programs emphasizing the acquisition of job skills through both vocational and technical education, and sought to make vocational education programs accessible to "special populations," including individuals with disabilities, disadvantaged individuals, single parents and homemakers, and incarcerated individuals.

The *Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990* (Perkins II) created the tech-prep program designed to coordinate secondary and postsecondary vocational education activities into a coherent sequence of courses. Most set-asides for "special populations" were removed from the legislation, but the program remained focused on providing members of special populations with access to high-quality vocational education. Programs to eliminate sex bias were designed to prepare students for nontraditional training and employment (e.g., training women to be welders or men to be nurses). The law also required states to develop and implement performance standards and measures to assess gains in learning and in program performance.

According to a number of sources, the *Carl D. Perkins Vocational and Technical Education Act of 1998* (Perkins III) included a number of substantive changes made by Congress to Perkins II, primarily in an effort to direct more resources for vocational education to the local level, i.e. to school districts, schools, and postsecondary institutions. As a consequence, set-aside funding streams for gender equity were eliminated, as were most other funding distribution requirements weighted toward "special population groups". To ensure that these special populations were not ignored, however, the law included an accountability system that not only continued to require states to do disaggregate reporting but also introduced potential rewards and consequences for states that did and did not improve student performance. Perkins III continued to emphasize the major program strategies reflected in Perkins II:

- integrating academic and vocational education, by implementing coherent sequences of academic and vocational and technical instruction;

- broadening the focus of vocational education content to emphasize industries and careers in place of entry-level, job-specific training; and

- strengthening the links between secondary and postsecondary education through tech-prep and other strategies.

On August 12, 2006, the *Carl D. Perkins Career and Technical Education Improvement Act of 2006* (Perkins IV) was signed into law. According to *Federal Funds Information for States* (FFIS), a joint subscription service of the National Governors Association and the National Conference of State Legislatures, this most recent reauthorization of the Perkins legislation:

> ... calls for some changes to vocational education programs. The accountability requirements for these programs are now aligned with other federal education and training programs. A new emphasis is placed on developing stronger ties between high schools, colleges and businesses to better meet the needs of the workforce. New requirements are placed on states to develop a logical sequence of courses, both high school and college, that will lead to an industry-recognized credential (certificate or post-secondary degree) upon completion. Lastly, a stronger academic focus is encouraged that promotes an emphasis on academic instruction for career and technical education programs consistent with federal education programs like No Child Left Behind.

As was the case with its predecessors, Perkins IV remains the principal source of federal funding to states for secondary and postsecondary vocational and technical education programs.

*States' Career Clusters Initiative*

In 1996, the US Department of Education's (USDE) Office of Vocational and Adult Education (OVAE), the National School to Work Office (NSTWO), and the National Skills Standards Board (NSSB) teamed to create the Building Linkages project. According to *The History of Career Clusters*, issued by the National Association of State Directors of Career and Technical Education Consortium in 2006, Building Linkages "was an attempt to create a voluntary skills standard system. The intention was to develop curricular frameworks in broad career cluster areas that would allow for successful transitions from school to work. ...Funding came from both the U.S. Departments of Labor and Education." Initially NSSB was responsible for the project, which consisted of three pilot projects: retail and banking; health; and manufacturing. The health and the manufacturing pilot projects were successful and became the bases for the current Health Science and Manufacturing clusters. Eventually, USDE became solely responsible for both funding and oversight of the project

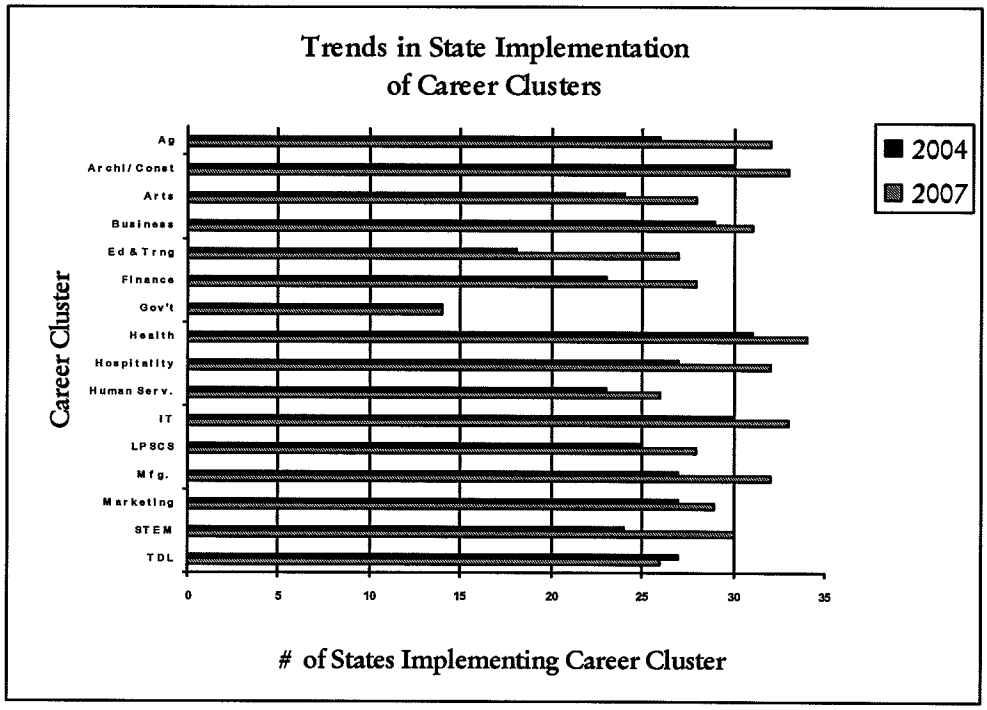
Based on the results of Building Linkages and on work being done by individual states, in 1999 OVAE adopted the following 16 career clusters, designed to be the framework for an integrated curriculum that would provide students with the academic and technical skills that they would need when they entered the workforce: Agriculture, Food, and Natural Resources; Architecture and Construction; Arts, A/V Technology, and Communications; Business, Management, and Administration; Education and Training; Finance; Government and Public Administration; Health Science; Hospitality and Tourism; Human Services; Information Technology; Law, Public Safety, and Security; Manufacturing; Marketing, Sales, and Service; Science, Technology, Engineering, and Mathematics (STEM); and Transportation, Distribution, and Logistics.

Initially, the USDE provided seed money under Perkins III to develop curriculum frameworks and instructional resources related to five career clusters. In 2001, the National Association of State Directors of Career and Technical Education Consortium received Perkins funds to assume oversight of the initiative, develop materials for the 11 remaining clusters, and disseminate the resulting model, now named the States' Career Clusters Initiative.

In 2002, postsecondary institutions assumed a greater role in the implementation of career clusters when OVAE sponsored the College and Career Transitions Initiative (CCTI), the primary goal of which is "to help community colleges, working with high schools and business partners, to create career pathways that lead from high school to 2- and 4-year degrees and technical careers." Administered by the League for Innovation in the Community College, CCTI has five specific "outcome" goals:

- decreased need for remediation at the postsecondary level;
- increased enrollment persistence in postsecondary education;
- increased academic and skill achievement at the secondary and postsecondary levels;
- increased attainment of postsecondary degrees, certificates, or other recognized credentials; and
- increased entry into employment or further education.

In April 2007, the National Association of State Directors of Career and Technical Education Consortium issued a report on the status of career cluster implementation across the states based on a survey of state career technical education directors. When the results of the survey were compared with the results of an earlier survey done in 2004, the Consortium found that—with the exception of the Transportation, Distribution, and Logistics cluster, which has decreased, and the Government and Public Administration cluster, which has remained flat—all career clusters have seen some increase in the number of states in which they have been implemented; the Education and Training cluster and the Science, Technology, Engineering, and Mathematics cluster have experienced the greatest increase:



The Consortium also notes the following:

> To be effective, programs of study delivered through the Career Clusters' Framework should include both secondary and postsecondary components. Since 2004, secondary implementation steadily increased by 12%. The biggest gains were seen at the post secondary level, with two-year community and technical colleges seeing a gain of 43% and four-year universities seeing an astounding 74% gain in implementation of Career Clusters. [These] data suggest that the Career Clusters and programs of study are helping to connect the learner levels and support seamless student transitions.

**The Funding and Implementation of Career Clusters in New Mexico**

Unless the Legislature makes a categorical appropriation, there is no state funding specifically identified to support CTE (vocational) programs. When the Public School Funding Formula was enacted in 1974, it did include an add-on cost differential for students enrolled in approved vocational education programs; the resulting units were subject to multiplication by the training and experience index (Laws of 1974, Chapter 8). However, in 1976, the vocational cost differential was eliminated as a separate factor and subsumed into a single cost differential for grades 7 through 12 (Laws of 1976, Chapter 32). Although the funding formula is noncategorical in the sense that the funding actually spent on an educational program does not have to equal the amount of money generated for that particular program, school districts must provide a program in order for the program to generate funds through the formula. Thus, there is no longer a vocational factor in the Public School Funding Formula that financially encourages school districts to offer such programs. However, grants allocated to states, school districts, and postsecondary institutions under the various Perkins acts have always been categorical and must be used to support CTE programs.

In 2005, the Legislature considered SB 996, *Career Pathways Student Pilot Project*, to appropriate $500,000 to the Career Pathways Pilot Project Fund for five existing and seven additional high school career pathways projects. However, the bill did not pass.

During the 2006 interim, the Legislative Education Study Committee (LESC) heard testimony from the Chair of the Governor's Workforce Coordination and Oversight Committee and the Secretary of Public Education regarding the seven New Mexico-specific career clusters, which, according to the presenters, incorporate all 16 of the USDE clusters. (See Attachment 2 for a table illustrating how New Mexico's career clusters and pathways map to the 16 USDE clusters.) Subsequently, the LESC endorsed the following appropriations totaling $7.1 million to the Higher Education Department (HED) to support the new initiative. Although HED received none of the proposed appropriations, the *General Appropriation Act of 2007* included a special appropriation of $400,000 to the Office of Workforce Training and Development for the "career clusters initiative."

| | ***(In thousands)*** |
|---|---|
| • Career Cluster Curricula Development | $3,000.0 |
| • Career Readiness Certificate Demonstration Project | $500.0 |
| • Life-skills Training Pilot Program | $100.0 |
| • Marketing and Outreach | $3,000.0 |
| • Workforce Forecast Model | $500.0 |

The LESC also endorsed a separate appropriation of $250,000 to the New Mexico State University (NMSU) Board of Regents to implement a Culinary Arts Statewide Certification Program[3]; however, that appropriation also failed to pass.

In order to receive Perkins funding, states must have an approved state plan that specifies the state's strategy for improving students' academic and technical skills. In New Mexico's *2005-2006 Consolidated Annual Report* to USDE, PED states:

> In 2005, as a consequence of New Mexico's high school reform efforts, and as incorporated within the NM PED's Carl D. Perkins Career and Technical Education initiatives, the CTWEB [Career Technical Workforce Education Bureau] began requiring Perkins recipients, both secondary and postsecondary, to restructure efforts using the Career Clusters framework. Sub-recipients began aligning secondary and postsecondary requirements, providing employability skills and industry based certifications at each level, and easing the transition process for students.

Applications from schools to PED for Perkins basic grants for school year 2007-2008 were required to provide specific information regarding each program of study to be funded by the Perkins grant. Provided by PED, Attachment 3 lists each institution that requested a basic grant, the high school (if applicable) on behalf of which the institution applied, the program(s) of study to be offered during school year 2007-2008, and the state career cluster to which each program of study is aligned. After the *Perkins Act* was reauthorized in 2006, PED submitted a required transition plan to USDE, assuring that all school districts (LEAs) would be required to align their CTE programs to both the national and the state-specific career clusters:

> As reflected in the local Request for Application Basic Grant (RFABG), each Local Educational Agency (LEA) requesting funding shall complete a program of study (POS) for every career technical education program funded by their request. The POS requirement in the application aligns to the 16 National Career Clusters and the State of New Mexico's 7 Career Clusters as endorsed by the Governor.

Technically, CTE courses and programs do not necessarily equate to career clusters. For example, a high school could offer its students several computer courses that do not constitute a logical sequence leading to a postsecondary or industry credential.

According to PED, for school year 2007-2008, a total of $8.2 million in Perkins funds has been allocated to various entities as follows (see Attachment 4):

- approximately $3.6 in basic grants to 29 school districts, four Regional Education Cooperatives (RECs), and two Bureau of Indian Affairs (BIA) secondary schools;

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[3] The ProStart program is a two-year curriculum developed by the National Restaurant Association Educational Foundation to prepare high school students for a career in the hospitality industry. ProStart receives no state funding, and relies on curriculum sales and contributions to support program activities, such as teacher training; the curriculum is available to school districts for $5,000 per year. The New Mexico Restaurant Association reports that 39 high schools in the state have purchased the curriculum, 28 of them are actively involved in the ProStart program, and more than 1,200 students participate annually.

NMSU has received a three-year, $289,000 grant from the US Department of Agriculture to fund the Pathways Initiative to recruit outstanding ProStart students into the university's School of Hotel, Restaurant and Tourism Management. Part of the grant will be used to provide training for ProStart teachers.

- a total of $240,000 ($20,000 each) to 12 high schools implementing the High Schools That Work (HSTW) framework;

- approximately $3.6 million in basic grants to one BIA and 16 public postsecondary institutions;

- a total of $60,000 ($30,000 each) to the New Mexico School for the Blind and Visually Impaired and to the New Mexico School for the Deaf; and

- a total of $792,721 in Tech Prep grants to Eastern New Mexico University-Roswell, the Las Cruces Public Schools, and Pecos Valley REC.

PED reports that, during school year 2006-2007, approximately 81,000 students in 82 school districts were enrolled in CTE courses.

**What the Research Shows**

Most of the published research regarding CTE appears to be descriptive rather than empirical in nature. At best, various studies use both quantitative and qualitative methodology to reach conclusions that may or may not be generalizable. In most cases the sample sizes are limited both in number and geographic location. One of the most comprehensive studies—the longitudinal study cited below—relies on data from a single example each of three CTE approaches to draw limited conclusions about the impact of various CTE reforms on the achievement of at-risk students.

National research on the efficacy of career clusters in particular is inconclusive. Although there is some evidence that career clusters may help to keep at-risk students in school; at-risk students still drop out at a higher rate than their peers. The greatest difficulty that researchers have is that the implementation of career clusters across high schools is inconsistent. While some schools build academic rigor into their career clusters/CTE programs, others still use them as "dumping grounds" for students not considered "college material." If there are strong experimental or quasi-experimental research studies on career clusters, they are keeping themselves hidden.

Research centered on CTE programs in New Mexico is not available. Although the state is required to provide an annual report to USDE regarding the progress that Perkins grant recipients have made in meeting agreed upon measures, the data are strictly descriptive in nature and cannot be used to draw causal inferences. Because schools in the state are just in the process of implementing the seven New Mexico-specific career clusters, it will be some time before any meaningful assessment of their efficacy can be attempted.

One of the few comprehensive research attempts to assess the impact of CTE was a five-year longitudinal study begun in 2001 that used both quantitative and qualitative methods "to identify CTE-based reform practices that have been successful in educating at-risk students so that these students get engaged in school, achieve academically, complete high school prepared for postsecondary education, and succeed in postsecondary education and/or work." Sponsored by the National Research Center for Career and Technical Education[4] and conducted by researchers from Johns Hopkins University and the University of Minnesota, the study had two components:

[4] The National Research Center for Career and Technical Education is a consortium of the University of Minnesota, Ohio State University, the University of Illinois, Oregon State University, Pennsylvania State University, the Academy for Educational Development, and Johns Hopkins University.

The first was a longitudinal examination over a four-year period of the progress of three cohorts of students as they proceeded through middle school, high school, and community college. The second was a comparison of the three cohort high schools, each of which was using one of three reform structures—career academies, career pathways, and HSTW—with three demographically matched high schools not implementing CTE. All six of the schools (treatment and control) served large numbers of African-American and Hispanic students but few Native American students.

Although the final report has not yet been released, in a November 4, 2005 webcast sponsored by the National Research Center the researchers noted that all three of the treatment high schools appeared to have a positive impact on the chances of at-risk students staying in school and graduating; however, students in the high school implementing career pathways still dropped out at a higher rate than their counterparts in the control group.

Another study issued in 2006 by the National Research Center for Career and Technical Education, *Does Career and Technical Education Affect College Enrollment?*, uses the National Longitudinal Survey of Youth 1997 (NLSY97)[5] to try to answer the title's question. Using a variety of regression and other statistical analyses, the researchers found that:

- the majority of American high school students participated in some CTE programs and work-related activities, and even more took at least one CTE education course. This finding holds true across all racial and ethnic groups, as well as socioeconomic backgrounds and levels of academic performance.

- there are some differences in participation rates for self-reported career-related activities and work-based programs. Black students participated at higher rates than any other group, while males and females participated at similar rates.

- when students participated in CTE programs, they were most likely to participate in some kind of work-based learning experience, relative to career majors or tech-prep programs.

- despite high levels of participation in career-related programs of study across socio-demographic groupings, including high-income and academically strong students, the opposite trend held true when transcript-based course-taking patterns were examined. Economically disadvantaged and low-performing students took proportionately more CTE courses than academic ones, relative to their more-advantaged counterparts.

- there were mixed results in terms of the transition to college. On the one hand, while there was no significant effect of career majors, cooperative education, or work-based learning program participation on first college enrollment, tech-prep programs seem to be associated with lower chances of college enrollment. On the other hand, higher proportions of CTE courses relative to academic courses yield negative effects on college attendance, even after adjusting for many of the selection characteristics often associated with course trajectories. In particular, once students take more than half their courses in CTE, their odds of college enrollment are significantly reduced.

[5] Conducted by the US Department of Labor, the NLSY97 consists of a nationally representative sample of approximately 9,000 youths who were 12 to 16 years old as of December 31, 1996. In the first round of the survey, conducted in 1997, both the eligible youth and one of that youth's parents received hour-long personal interviews. According to the Bureau of Labor Statistics, youths continue to be interviewed on an annual basis.

Finally, although specific research regarding CTE programs in New Mexico is unavailable, there have been studies done in other states regarding HSTW, which is a model used by 12 high schools in the state. And there are differences of opinion.

In a 2002 report, *Career and Technical Education Reforms and Comprehensive School Reforms in High Schools: Their Impact on Education Outcomes for At-Risk Youth* (National Research Center for Career and Technical Education), the authors cite research showing that "schools that implement [HSTW] faithfully usually see improved student achievement and higher rates of attendance, graduation, retention, and postsecondary enrollment." However, in a 2006 report, *CSRQ Center Report on Middle and High School Comprehensive School Reform Models*, the Comprehensive School Reform Quality Center (CSRQ) states that there is no solid research evidence of positive overall effects: "The CSRQ Center reviewed 48 quantitative studies for effects of HSTW on student achievement at the middle and high school levels. Of these studies, none met the CSRQ Center's standards for rigor of research design. Therefore, the overall rating in this subcategory is zero." However, CSRQ does give a strong rating with regard to evidence of a link between research and model design: "Based on documentation provided by HSTW, explicit citations support all of the core components of HSTW: organization and governance; professional development; technical assistance; curriculum; student assessment; data-based decision making; and parent, family, and community involvement."

**Policy Options**

Among the high school reform initiatives passed by the 2007 Legislature, statute was amended to place a greater emphasis on ensuring that students graduate from high school ready for college and the workplace:

- No later than school year 2008-2009, PED is required to "establish a readiness assessment system to measure the readiness of every New Mexico high school student for success in higher education or a career."

- Local boards are directed to ensure (1) that each high school student has the opportunity to develop his or her Next-Step Plan "based on reports of college and workplace readiness assessments, as available, and other factors" and (2) that the student is reasonably informed about curricular and course options, "including honors or advanced placement courses, dual-credit courses, distance learning courses, career clusters or remediation programs that the college and workplace readiness assessments indicate to be appropriate."

- In order to graduate, students entering the ninth grade beginning school year 2009-2010 will be required to complete at least one unit "in one of the following: a career cluster course, workplace readiness or a language other than English."

To underscore the importance of college and workplace readiness, the committee may wish to consider the following policy options:

- Require all school districts to offer, or to provide access to, one or more of the seven New Mexico-specific career clusters. (Currently, only districts that apply for and receive Perkins funding are required to do so.)

- Require that, in order to graduate, all students must complete a career pathway—rather than one unit in a career cluster course, workplace readiness, or a language other than English.

In order to provide a strong basis upon which to make policy decisions, PED needs to develop an evaluation design and system of data collection and analysis that will enable policymakers at both the state and federal levels to assess whether the seven New Mexico career clusters and their associated pathways are serving their intended purpose of providing students with the skills necessary for success in college and/or the workplace.

**Presenters:**

Mr. Larry Langley, President and CEO, New Mexico Business Roundtable for Educational Excellence, will discuss what impact the implementation of the seven New Mexico-specific career clusters will have on the business community; Mr. Len Malry, Executive Director of Workforce Education, Higher Education Department, will describe public school-postsecondary connections with regard to the implementation of the clusters; and Ms. Linda Sink, Associate Superintendent of Instruction, Albuquerque Public Schools (APS), will talk about how the "new" clusters are being implemented at APS, including any problems the district may be encountering; what the district believes the outcome will be for students and how the district will evaluate the results; and what types of linkages the district has formed with postsecondary institutions and the business community.

**ATTACHMENT 1**

## GOVERNOR'S WORKFORCE COORDINATION AND OVERSIGHT COMMITTEE

Terri L. Cole (Chair), president and CEO, Greater Albuquerque Chamber of Commerce
Len Malry, acting executive director, Office of Workforce Training and Development
Rick Homans, cabinet secretary, Department of Economic Development
Beverlee McClure, cabinet secretary, Higher Education Department
Conroy Chino, cabinet secretary, Department of Labor
Veronica García, cabinet secretary, Public Education Department
Katie Falls, deputy cabinet secretary, Human Services Department
Danny Sandoval, deputy cabinet secretary, Department of Children, Youth and Families
Tom Battin, chairman of the Board of State National Bank, Ruidoso
Norman Becker, a consultant and former president and CEO of Lovelace Sandia Health System
Debbie Johnson, CEO of Rick Johnson Company
Joseph Semprevivo, CEO of Joseph's Lite Cookies, Deming
Rebecca Rowley, Clovis Community College Interim President
Sue Cleveland, Rio Rancho Schools Superintendent
Chris Romero, President of International Union of Painters and Allied Trades (IUPAT)
State Representative Brian Moore
State Senator Phil Griego
State Senator Ben D. Altamirano, President Pro-Tempore

Source: "Governor Bill Richardson Announces the Work in New Mexico Career Clusters Guidebook," press release, Office of the Governor, August 29, 2006.

**ATTACHMENT 2**

# Mapping of New Mexico's Career Clusters and Pathways to the U.S. Department of Education's Career Clusters

| NEW MEXICO'S SEVEN CAREER CLUSTERS | NEW MEXICO'S FORTY-NINE CAREER PATHWAYS | U.S. DEPT OF EDUCATION'S CAREER CLUSTERS |
|---|---|---|
| Arts and Entertainment Cluster | ☐ Entrepreneurship Pathway | ☐ Business, Management and Administration<br>☐ Marketing, Sales and Service |
| | ☐ Visual Arts Pathway | ☐ Arts, A-V, Technology and Communications |
| | ☐ Performing Arts Pathway | ☐ Arts, A-V, Technology and Communications |
| | ☐ Foreign Language Pathway | ☐ Education and Training<br>☐ Hospitality and Tourism |
| | ☐ Design Pathway | ☐ Arts, A-V, Technology and Communications<br>☐ Architecture & Construction |
| Business Services Cluster | ☐ Administrative and Information Support Pathway | ☐ Business, Management and Administration<br>☐ Information Technology |
| | ☐ Business, Financial Management and Accounting Pathway | ☐ Business, Management and Administration<br>☐ Finance<br>☐ Human Service |
| | ☐ Economics and Management Pathway | ☐ Business, Management and Administration<br>☐ Marketing, Sales and Service |
| | ☐ Information Technology Systems Administration Pathway | ☐ Information Technology<br>☐ Science, Technology, Engineering and Mathematics |
| | ☐ Legal Services Pathway | ☐ Government and Public Administration<br>☐ Finance<br>☐ Law, Public Safety, Corrections and Security |
| | ☐ Teaching and Training Pathway | ☐ Education and Training<br>☐ Human Services |
| | ☐ Human Resources Management Pathway | ☐ Business, Management and Administration<br>☐ Human Service<br>☐ Finance |
| | ☐ Consumer Sales and Service Pathway | ☐ Marketing, Sales and Service |
| Communications and Information Cluster | ☐ Marketing Pathway | ☐ Business, Management and Administration<br>☐ Marketing, Sales and Service<br>☐ Transportation, Distribution and Logistics<br>☐ Arts, A-V. Technology and Communications |
| | ☐ Communications Pathway | ☐ Arts, A-V Technology and Communications<br>☐ Marketing, Sales and Service |

| NEW MEXICO'S SEVEN CAREER CLUSTERS | NEW MEXICO'S FORTY-NINE CAREER PATHWAYS | U.S. DEPT OF EDUCATION'S CAREER CLUSTERS |
|---|---|---|
| Communications and Information Cluster, cont. | ☐ Media Technologies Pathway | ☐ Arts, A-V, Technology and Communications<br>☐ Information Technology<br>☐ Science, Technology, Engineering & Mathematics |
| | ☐ Software Application Development Pathway | ☐ Information Technology<br>☐ Science, Technology, Engineering & Mathematics |
| | ☐ Web Development | ☐ Information Technology<br>☐ Science, Technology, Engineering & Mathematics |
| | ☐ Printing Technology Pathway | ☐ Arts, A-V Technology and Communication<br>☐ Information Technology<br>☐ Manufacturing |
| | ☐ Network Systems | ☐ Information Technology<br>☐ Business, Management and Administration |
| Energy and Environmental Technologies Cluster | ☐ Government Relations Pathway | ☐ Government & Public Administration<br>☐ Law, Public Safety & Security |
| | ☐ Product Engineering Pathway | ☐ Science, Technology, Engineering & Mathematics<br>☐ Manufacturing<br>☐ Architecture & Construction |
| | ☐ Machining, Instrument and Electrical Pathway | ☐ Architecture & Construction<br>☐ Manufacturing<br>☐ Transportation, Distribution & Logistics<br>☐ Science, Technology, Engineering & Mathematics |
| | ☐ Process Engineering Pathway | ☐ Science, Technology, Engineering & Mathematics<br>☐ Manufacturing |
| | ☐ Health, Safety and Environmental Regulation Pathway | ☐ Health<br>☐ Manufacturing<br>☐ Agriculture, Food & Natural Resources<br>☐ Science, Technology, Engineering and Mathematics |
| | ☐ Maintenance Operations Pathway | ☐ Architecture & Construction<br>☐ Manufacturing<br>☐ Agriculture, Food & Natural Resources<br>☐ Science, Technology, Engineering & Mathematics |
| | ☐ Civil Engineering | ☐ Architecture & Construction<br>☐ Science, Technology, Engineering and Mathematics |
| | ☐ Environmental Systems Pathway | ☐ Science, Technology, Engineering and Mathematics<br>☐ Manufacturing<br>☐ Agriculture, Food and Natural Resources<br>☐ Health |

| NEW MEXICO'S SEVEN CAREER CLUSTERS | NEW MEXICO'S FORTY-NINE CAREER PATHWAYS | U.S. DEPT OF EDUCATION'S CAREER CLUSTERS |
|---|---|---|
| Engineering, Construction, Manufacturing and Agriculture Cluster | ☐ Architecture and Drafting Pathway | ☐ Architecture & Construction |
| | ☐ Systems Integration Engineering Pathway | ☐ Science, Technology, Engineering & Mathematics<br>☐ Information Technology |
| | ☐ Quality Assurance Pathway | ☐ Manufacturing<br>☐ Transportation, Distribution,& Logistics<br>☐ Agriculture, Food & Natural Resources |
| | ☐ Logistics and Inventory Pathway | ☐ Transportation, Distribution & Logistics<br>☐ Business, Management & Administration |
| | ☐ Agribusiness | ☐ Agriculture, Food and Natural Resources<br>☐ Business, Management, and Administration<br>☐ Marketing Sales and Service<br>☐ Science, Technology, Engineering, and Mathematics |
| | ☐ Construction Pathway | ☐ Architecture & Construction<br>☐ Business, Management & Administration |
| | ☐ Trades, Installation and Repair Pathway | ☐ Architecture & Construction<br>☐ Manufacturing<br>☐ Transportation, Distribution,& Logistics |
| | ☐ Project Management Pathway | ☐ Architecture & Construction<br>☐ Business, Management & Administration<br>☐ Science, Technology, Engineering, & Mathematics |
| Health and Biosciences Cluster | ☐ Basic Science Pathway | ☐ Science, Technology, Engineering & Mathematics<br>☐ Health |
| | ☐ Applied Research Engineering Pathway | ☐ Science, Technology, Engineering & Mathematics<br>☐ Health |
| | ☐ Medical Treatment Pathway | ☐ Science, Technology, Engineering & Mathematics<br>☐ Health |
| | ☐ Para-Professional Healthcare Treatment Pathway | ☐ Science, Technology, Engineering & Mathematics<br>☐ Health |
| | ☐ Medical Diagnosis Services Pathway | ☐ Science, Technology, Engineering & Mathematics<br>☐ Health |
| | ☐ Para Professional Healthcare Diagnosis Pathway | ☐ Science, Technology, Engineering & Mathematics<br>☐ Health |
| | ☐ Health Informatics Pathway | ☐ Science, Technology, Engineering & Mathematics<br>☐ Health |

| NEW MEXICO'S SEVEN CAREER CLUSTERS | NEW MEXICO'S FORTY-NINE CAREER PATHWAYS | U.S. DEPT OF EDUCATION'S CAREER CLUSTERS |
|---|---|---|
| Hospitality and Tourism Cluster | ☐ Restaurant Management Pathway | ☐ Hospitality & Tourism<br>☐ Business, Management & Administration |
| | ☐ Hotel and Resort Management Pathway | ☐ Business, Management & Administration<br>☐ Finance<br>☐ Hospitality & Tourism<br>☐ Marketing, Sales & Service |
| | ☐ Destination and Events Management Pathway | ☐ Marketing, Sales & Service<br>☐ Business, Management, & Administration |
| | ☐ Culinary Arts Pathway | ☐ Hospitality and Tourism |
| | ☐ Recreation and Gaming Pathway | ☐ Hospitality & Tourism<br>☐ Science, Technology, Engineering & Mathematics<br>☐ Law, Public Safety & Security<br>☐ Transportation, Distribution & Logistics |
| | ☐ Environmental, Historic and Cultural Preservation Pathway | ☐ Agriculture, Food & Natural resources<br>☐ Hospitality & Tourism<br>☐ Law Public Safety & Security<br>☐ Science, Technology, Engineering, and Mathematics<br>☐ Transportation, Distribution & Logistics |

**ATTACHMENT 3**

# PERKINS APPLICATION EVALUATION 2008 - BASIC GRANT

Melissa W. Lomax, Ph.D., Bureau Chief
Career-Technical & Workforce Education Bureau
melissa.lomax@state.nm.us
505 827-1808

If you have more than one program of study, copy the line and paste for as many as you need.
(See example for APS)

| INSTITUTION | HIGH SCHOOL | PROGRAM OF STUDY | ALIGNED TO WHICH NM CLUSTER? |
|---|---|---|---|
| *SCHOOL DISTRICTS* | | | |
| Alamogordo Public Schools | Alamogordo High | .Basic Computer Skills<br>.Web Design<br>.Media Technology | .Communications & Information<br>.Communications & Information<br>.Communications & Information |
| Albuquerque Public Schools | Albuquerque Charter Vocational High School | Media Technologies | Arts & Entertainment |
| Albuquerque Public Schools | Albuquerque Charter Vocational High School | Trades and Installation and Repair | Engineering, Construction, & Manufacturing |
| Albuquerque Public Schools | Albuquerque High School | Engineering & Technology | Engineering, Construction, & Manufacturing |
| Albuquerque Public Schools | Albuquerque High School | Pre Management | Business Services |
| Albuquerque Public Schools | Cibola High School | Automotive Technology | Energy & Environmental Technologies |
| Albuquerque Public Schools | Cibola High School | Carpentry and Construction | Engineering, Construction, & Manufacturing |
| Albuquerque Public Schools | Cibola High School | Engineering | Engineering, Construction & Manufacturing |
| Albuquerque Public Schools | Cibola High School | Information Technology | Communication & Information |
| Albuquerque Public Schools | Eldorado High School | Automotive Technology | Engineering, Construction & Manufacturing |
| Albuquerque Public Schools | Eldorado High School | Construction | Engineering, Construction & Manufacturing |
| Albuquerque Public Schools | Eldorado High School | Elementary Teacher | Business Services Cluster |
| Albuquerque Public Schools | Highland High School | Automotive Technology | Engineering, Construction & Manufacturing |
| Albuquerque Public Schools | Highland High School | Marketing Education | Business Services |
| Albuquerque Public Schools | Highland High School | Welding | Engineering, Construction & Manufacturing |
| Albuquerque Public Schools | Manzano High School | Culinary Arts | Hospitality & Tourism |
| Albuquerque Public Schools | Manzano High School | Education & Training | Business Services |
| Albuquerque Public Schools | Manzano High School | International Business | Business Services |
| Albuquerque Public Schools | Manzano High School | Education & Training | Business Services |
| Albuquerque Public Schools | Rio Grande High School | Woods | Engineering, Construction & Manufacturing |
| Albuquerque Public Schools | Valley High School | CAD/Drafting | Engineering, Construction & Manufacturing |
| Albuquerque Public Schools | Valley High School | Construction | Engineering, Construction & Manufacturing |
| Albuquerque Public Schools | Valley High School | Culinary Arts | Hospitality & Tourism |
| Albuquerque Public Schools | Valley High School | Manufacturing | Engineering, Construction & Manufacturing |
| Albuquerque Public Schools | Valley High School | Professional Educator | Business Services |
| Albuquerque Public Schools | Volcano Vista HS | Business Administration | Business Services |
| Albuquerque Public Schools | West Mesa High School | Consumer Sales & Services | Business Services |
| Albuquerque Public Schools | West Mesa High School | Systems Integration | Engineering, Construction & Manufacturing |
| Albuquerque Public Schools | West Mesa High School | Culinary Arts | Hospitality and Tourism |

| INSTITUTION | HIGH SCHOOL | PROGRAM OF STUDY | ALIGNED TO WHICH NM CLUSTER? |
|---|---|---|---|
| Albuquerque Public Schools | West Mesa High School | Trades Installation & Repair | Engineering, Construction & Manufacturing |
| Animas Public Schools | Animas HS | Welding | Eng., Mfg., Const., & Ag. |
| Belen Consolidated Schools | Belen High School | Digital media | Arts and Entertainment |
| Belen Consolidated Schools | Belen High School | Metal Technology | Eng., Mfg., Const., & Ag. |
| Belen Consolidated Schools | Belen High School | Automotive Service Technology | Eng., Mfg., Const., & Ag. |
| Belen Consolidated Schools | Belen High School | Hospitality and Tourism | Hospitality and Tourism |
| Bernalillo Public Schools | Bernalillo H S | Education and Training | Business Services |
| Bernalillo Public Schools | Bernalillo H S | Construction Pathway – Construction Technology | Engineering, Construction & Manufacturing |
| Bernalillo Public Schools | Bernalillo H S | Construction Pathway – Metal Technology | Engineering, Construction & Manufacturing |
| Bernalillo Public Schools | Bernalillo H S | Automotive Technology – Trades, Installation and Repair Pathway | Engineering, Construction & Manufacturing |
| Bernalillo Public Schools | Bernalillo H S | Desk Top Publishing | Business Services |
| Bernalillo Public Schools | Bernalillo H S | Child Development | Business Services |
| Bernalillo Public Schools | Bernalillo H S | Microtechnology – Robotics | Engineering, Construction & Manufacturing |
| Bernalillo Public Schools | Bernalillo H S | Culinary Arts & Hotel Management | Hospitality and Tourism |
| Carlsbad Municipal Schools | Carlsbad HS | Building Trades | Eng., Mfg., & Constr. |
| Central Consolidated Schools | | Health Science | Health Bio/Sci |
| Clovis Municipal Schools | Clovis H. S. | Visual Arts | Arts & Entertainment |
| Clovis Municipal Schools | Clovis H. S. | Education & training | Business Services |
| Clovis Municipal Schools | Clovis H. S. | Rest. Management | Hospitality |
| Cobre Consolidated Schools | Cobre High | .Architecture & Construc | .Eng, Construc, & Manuf. |
| Deming Public Schools | Deming High School | .Emergency Med. Training & Nrsg<br>.Fashion and Interior Design<br>.Culinary Arts | .Health & Biosciences<br>.Eng, Const., Manuf. & Ag.Hospitality & Tourism |
| Española Public Schools | Española High School | Business Management and Administration | Business Services |
| Española Public Schools | Española High School | Arts AV Technology and Communications | Arts and Entertainment |
| Farmington Municipal Schools | | Comm. & Inform. | Comm. & Inform |
| Gadsden Independent Schools | Gadsden High School | Teacher/Training | Business Services |
| Gadsden Independent Schools | Gadsden High School | Therapeutic Services | Health & Biosciences |
| Gadsden Independent Schools | Gadsden High School | Facility and Mobile Equipment | Eng., Mfg., Const., & Ag. |
| Gadsden Independent Schools | Gadsden High School | Design/Pre-Construction Civil/Survey Technology | Eng., Mfg., Const., & Ag. |
| Gadsden Independent Schools | Gadsden High School | Design/Pre-Construction Architectural Technology | Eng., Mfg., Const., & Ag. |
| Gadsden Independent Schools | Gadsden High School | Restaurant and Food Services | Hospitality and Tourism |
| Gadsden Independent Schools | Gadsden High School | Audio/Visual Technology | Arts and Entertainment |
| Gadsden Independent Schools | Gadsden High School | Marketing | Business Services |
| Gadsden Independent Schools | Gadsden High School | Administration and Information Support | Business Services |
| Gallup-McKinley County Schools | | Welding Technology (Crownpoint High School) | Engineering, Construction, Manufacturing, and Agriculture |

| INSTITUTION | HIGH SCHOOL | PROGRAM OF STUDY | ALIGNED TO WHICH NM CLUSTER? |
|---|---|---|---|
| Gallup-McKinley County Schools | | Culinary Arts (Gallup High School) | Hospitality and Tourism |
| Gallup-McKinley County Schools | | Carpentry (Gallup High School) | Engineering, Construction, Manufacturing, and Agriculture |
| Gallup-McKinley County Schools | | Welding (Gallup High School) | Engineering, Construction, Manufacturing, and Agriculture |
| Gallup-McKinley County Schools | | Marketing (Gallup Jr. High 9th Grade) | Information and Communications |
| Gallup-McKinley County Schools | | Carpentry (Gallup Jr. High 9th Grade ) | Engineering, Construction, Manufacturing, and Agriculture |
| Gallup-McKinley County Schools | | Culinary Arts (Gallup jr. High 9th Grade ) | Hospitality and Tourism |
| Gallup-McKinley County Schools | | Welding (Navajo Pine High School) | Engineering, Construction, Manufacturing, and Agriculture |
| Gallup-McKinley County Schools | | Automotive Technology (Ramah High School) | Engineering, Construction, Manufacturing, and Agriculture |
| Gallup-McKinley County Schools | | Culinary Arts (Ramah High School) | Hospitality and Tourism |
| Gallup-McKinley County Schools | | Information Support and Services (Thoreau High School) | Information and Communications |
| Gallup-McKinley County Schools | | Desktop Publishing (Tohatchi High School) | Business Services |
| Gallup-McKinley County Schools | | Construction Technology-Electrical – (T'se Yi GAi High School) | Engineering, Construction, Manufacturing, and Agriculture |
| Grants-Cibola County Schools | Grants High | .Criminal Justice | .Business Services |
| Hatch Valley Public Schools | | Welding/Const. | Eng. Mfg. Const.,Ag |
| Hobbs Municipal Schools | Hobbs High School | Engineering, Manufacturing and Construction | Eng., Mfg., Const., & Ag. |
| Las Cruces Public Schools | High School<br>Onate High | Health Occupations – Certified Nursing Assistant | Health and Bioscience |
| Las Cruces Public Schools<br>I | Las Cruces High School | Horticulture – Landscape Design | Eng., Mfg., Const., & Ag. |
| Las Cruces Public Schools | Mayfield High School<br>Las Cruces High School<br>Onate High School | Finance | Business Services |
| Las Cruces Public Schools | Mayfield High School<br>Las Cruces High School<br>Onate High School | Drafting and Design Technologies | Eng., Mfg., Const., & Ag |
| Las Cruces Public Schools | Mayfield High School<br>Las Cruces High School<br>Onate High | Hospitality and Tourism – Lodging Management | Hospitality |
| Las Cruces Public Schools | Mayfield High School<br>Las Cruces High School<br>Onate High | Hospitality and Tourism – Restaurant | Hospitality |
| Las Cruces Public Schools | Mayfield High School<br>Las Cruces High School<br>Onate High | Interactive Media | Information and Communications |
| Las Cruces Public Schools | Mayfield High School<br>Las Cruces High School | Manufacturing – Welding Technology | Eng., Mfg., Const., & Ag. |
| Las Cruces Public Schools | Mayfield High School<br>Las Cruces High School<br>Onate High | Project Lead the Way / Pre-Engineering | Eng., Mfg., Const., & Ag. |
| Las Vegas City Schools | Robertson High School | Electronics Engineering | Eng., Mfg., Const., & Ag |
| Lordsburg Municipal Schools | (Does not qualify) | Production | .Eng, Construc & Manuf |
| Los Lunas Schools | Los Lunas High School | Science, Technology, Engineering and Mathematics (PLTW) | Eng., Mfg., Const., & Ag. |
| Lovington Municipal Schools | Lovington High School | Welding Metal Fabrication | Eng., Mfg., Const., & Ag. |
| Portales Municipal Schools | | Culinary Arts | Hospitality |

| INSTITUTION | HIGH SCHOOL | PROGRAM OF STUDY | ALIGNED TO WHICH NM CLUSTER? |
|---|---|---|---|
| Rio Rancho Public Schools | Independence High | Culinary Arts | Hospitality & Tourism |
| Rio Rancho Public Schools | Rio Rancho HS | Pre-Engineering | Engineering, Construction & Manufacturing |
| Rio Rancho Public Schools | Rio Rancho HS | Culinary Arts | Hospitality & Tourism |
| Roswell Independent Schools | Goddard HS | Business, Management, & Administration | Business Services |
| Roswell Independent Schools | Goddard HS | Communication; Media Technologies | Business Services |
| Roswell Independent Schools | Roswell HS | Hotel Management | Hospitality & Tourism |
| Roswell Independent Schools | Roswell HS | Restaurant Management | Hospitality & Tourism |
| Santa Fe Public Schools | Capitol HS | Video Production | Arts & Entertainment |
| Santa Fe Public Schools | S.F. High School | Medical Assistant | Health & Biosciences |
| Santa Fe Public Schools | SF High School | Plant & Enrviron. Science | Energy & Environ. Tech |
| Silver Consolidated Schools | | Info. And Comm. | Comm. Info. |
| Silver Consolidated Schools | | Eng. And Enviro. Tech | Energy & Environment |
| Silver Consolidated Schools | | Eng. Mfg. Const, and Ag | Eng., Mfg., Const., & Ag. |
| Silver Consolidated Schools | | Hospitality | Hospitality and Tourism |
| Socorro Consolidated Schools | Socorro High | Forensic Sci Tech | .Health & Biosciences |
| Taos Municipal Schools | Taos High | .Med. Treatment Servs.<br>.Culinary Arts | .Health & Biosciences<br>.Hospitality & Tourism |
| Truth or Consequences Municipal Schools | | AG Econ, Business, Entrepreneurship. | Engineering, Construction, Manufacturing, and Agriculture |
| Tucumcari Public Schools | Tucumcari HS | Construction | Engineering, Construction & Manufacturing |
| | | | |
| ***RECs*** | | | |
| REC II | | Business Services | Business Services |
| REC IV | | Health and Bio-sciences | Health and Bio-sciences |
| REC IX | | Agriculture Ed. | Eng.,Mfg, Const., AG |
| REC IX | | Culinary Arts | Hospitality |
| REC-Pecos Valley | Dexter HS | Facility & Mobil Equipment Maintenance | Engineering, Construction & Manufacturing |
| REC-Pecos Valley | Hagerman HS | Facility & Mobil Equipment Maintenance | Engineering, Construction & Manufacturing |
| REC-Pecos Valley | Lake Arthur HS | Facility & Mobil Equipment Maintenance | Engineering, Construction & Manufacturing |
| REC-Pecos Valley | Loving HS | Facility & Mobil Equipment Maintenance | Engineering, Construction & Manufacturing |
| | | | |
| ***POSTSECONDARY INSTITUTIONS*** | | | |
| Central New Mexico Community College | | Teaching & Training | Business Services |
| Central New Mexico Community College | | Economics & Management | Business Services |
| Central New Mexico Community College | | Trades, Installation, & Repair Construction | Engineering, Construction & Manufacturing, |
| Central New Mexico Community College | | Medical Diagnosis Services | Health & Biosciences |
| Clovis Community College | | Media Art | Arts & Entertainment |
| Clovis Community College | | Computer Info Systems | Information & Commun. |
| Clovis Community College | | Medical Office Prof. | Health & Biosciences |
| Clovis Community College | | EMS | Health & Biosciences |
| Clovis Community College | | Nursing | Health & Biosciences |
| Clovis Community College | | Radiologic Tech | Health & Biosciences |
| Clovis Community College | | Auto Tech | Eng., Mfg., Constr., |
| Clovis Community College | | Electrical Apprenticeship | Eng., Mfg., Constr., |
| Clovis Community College | | HVAC | Eng., Mfg., Constr., |
| Clovis Community College | | Welding | Eng., Mfg., Constr., |
| Luna Community College | | Computer Inf. | Comm. & Info. |

| INSTITUTION | HIGH SCHOOL | PROGRAM OF STUDY | ALIGNED TO WHICH NM CLUSTER? |
|---|---|---|---|
| Mesalands Community College | | Building Trades | Engineering, Construction, Manufacturing, and Agriculture |
| New Mexico Junior College | Eunice, Hobbs, Jal, Lovington, Tatum | Personal Care Services (Cosmetology) | Business Services |
| New Mexico Junior College | Eunice, Hobbs, Jal, Lovington, Tatum | Therapeutic Services | Health and Biosciences |
| New Mexico Junior College | Eunice, Hobbs, Jal, Lovington, Tatum | Facility and mobile equipment maintenance | Eng., Mfg., Const., & Ag. |
| New Mexico Junior College | Eunice, Hobbs, Jal, Lovington, Tatum | Design and preconstruction pathway for AAS in CAD | Eng., Mfg., Const., & Ag. |
| New Mexico Junior College | Hobbs, Lovington, | Law Enforcement | Business Services |
| NMSU-Alamogordo | Alamogordo High School | .Med. Treatment .Svcs-ParaProf. | .Health & Biosciences |
| NMSU-Carlsbad | | Medical Treat. Services | Health & Bioscience |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High, St. Teresa and Gadsden | Business Office Technology | Business Services |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High, St. Teresa and Gadsden | Water Technology | Eng., Mfg., Const., & Ag. |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High | Emergency Medical Services | Health and Bioscience |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High, St. Teresa and Gadsden | Diagnostic Medical Sonography | Health and Bioscience |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High Chaparral, St. Teresa and Gadsden, | Building Construction Technology | Eng., Mfg., Const., & Ag. |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High | Heating, Ventilation, Air Conditioning and Refrigeration | Eng., Mfg., Const., & Ag. |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High, St. Teresa and Gadsden | Automation and Manufacturing | Eng., Mfg., Const., & Ag. |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High, Chaparral, St. Teresa and Gadsden | Automotive Technology | Eng., Mfg., Const., & Ag. |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High, St. Teresa and Gadsden | Computer and Information Technology | Business Services |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High, St. Teresa and Gadsden | Creative Media Technology | Arts and Entertainment |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High, St. Teresa and Gadsden | Dental Assistant/Dental Hygiene | Health and Bio Science |
| NMSU-Doña Ana | Mayfield High School Las Cruces High School Onate High Chaparral, St. Teresa and Gadsden | Drafting and Design Technologies | Eng., Mfg., Const., & Ag. |

| INSTITUTION | HIGH SCHOOL | PROGRAM OF STUDY | ALIGNED TO WHICH NM CLUSTER? |
|---|---|---|---|
| NMSU-Doña Ana | Mayfield High School<br>Las Cruces High School<br>Onate High, St. Teresa and Gadsden | Electronics Technology | Eng., Mfg., Const., & Ag. |
| NMSU-Doña Ana | Mayfield High School<br>Las Cruces High School<br>Onate High, St. Teresa and Gadsden | Hospitality and Culinary Arts | Hospitality and Tourism |
| NMSU-Doña Ana | Mayfield High School<br>Las Cruces High School<br>Onate High, St. Teresa and Gadsden | Nursing/Certified Nursing Assistant/Health Occupations | Health and Bio Science |
| NMSU-Doña Ana | Mayfield High School<br>Las Cruces High School<br>Onate High, St. Teresa and Gadsden | Respiratory Care | Health and Bio Science |
| NMSU-Doña Ana | Mayfield High School<br>Las Cruces High School<br>Onate High Chaparral, St. Teresa and Gadsden | Welding Technology | Eng., Mfg., Const., & Ag. |
| NMSU-Doña Ana | Mayfield High School<br>Las Cruces High School<br>Onate High | Radiologic Technology | Health and Bio Science |
| NMSU-Grants | Grants High<br>Laguna/Acoma | Legal Services | .Business Services |
| Northern New Mexico College | | Mgmt, Fin. & Support | Business Services |
| Northern New Mexico College | | Trans. Operations | Eng., Mfg., & Constr. |
| Northern New Mexico College | | Film Technician | Arts & Entertainment |
| Northern New Mexico College | | Construction | Eng., Mfg., & Constr. |
| Northern New Mexico College | | Radiologist Tech | Health & Biosciences |
| Northern New Mexico College | | Nursing Assistant | Health & Biosciences |
| San Juan College | | Health/ Bioscience Nursing | Health Bioscience |
| San Juan College | | Health/Biosciences (EMS) | Health Bioscience |
| Santa Fe Community College | | Med. Asst./Resp. Therapy | Health & Biosciences |
| Santa Fe Community College | | Architecture, Drafting | Engr., Mfg., Constr., Ag. |
| UNM-Gallup | | Health Information Technology | Health and Biosciences |
| UNM-Gallup | | Nursing | Health and Biosciences |
| UNM-Gallup | | Automotive Technology | Engineering, Construction, Manufacturing, and Agriculture |
| UNM-Gallup | | Collision Repair (Automotive) | Engineering, Construction, Manufacturing, and Agriculture |
| UNM-Gallup | | Cosmetology and Barbering | Business Services |
| UNM-Gallup | | Drafting AutoCAD | Engineering, Construction, Manufacturing, and Agriculture |
| UNM-Gallup | | Dental Assisting | Health and Biosciences |
| UNM-Gallup | | Electronic Publishing | Communications and Information |
| UNM-Gallup | | Information Technology | Business Services |
| UNM-Gallup | | Fire Science | Energy and Environmental Technologies |
| UNM-Gallup | | Construction Technology | Engineering, Construction, Manufacturing, and Agriculture |
| UNM-Gallup | | Welding Technology | Engineering, Construction, Manufacturing, and Agriculture |
| UNM-Gallup | | Culinary Arts | Hospitality and Tourism |
| UNM-Gallup | | Home Healthcare Technician | Health and Biosciences |
| UNM-Gallup | | Diabetes Prevention | Health and Biosciences |

| INSTITUTION | HIGH SCHOOL | PROGRAM OF STUDY | ALIGNED TO WHICH NM CLUSTER? |
|---|---|---|---|
| UNM-Taos | Taos High<br>Peñasco High<br>Cimarron High<br>Questa High<br>Mesa Vista High | .Health Sci/ParaProf Healthcare-Therapeutic Occs.<br>.Admin & Infor Sup/Admin Assist, Bus Computing<br>.Interactive Media | .Health & Biosciences<br>.Business Services<br>.Communications & Information |
| UNM-Valencia | Belen, Los Lunas and Socorro | Digital Media Arts | Arts and Entertainment |
| UNM-Valencia | Belen, Los Lunas and Socorro | Pharmacy Technician | Health and Bio Science |
| Western New Mexico University | | Arts and Ent. | Arts and Entertainment |
| Western New Mexico University | | Comm. And Info. | Communications and Information |
| | | | |
| *OTHER INSTITUTIONS* | | | |
| Alamo Navajo School | | Nursing Asst. | Health Bio/Sci |
| Alamo Navajo School | | Const. Tech | Eng. Mfg, Con.Ag |
| Alamo Navajo School | | Computer App. | Bus. Mgt. Svc |
| Navajo Preparatory School | | Agriculture, Food and Natural Resources, STEM. | Energy and Environmental Technologies |
| Santa Fe Indian School | | NOT PROVIDED | NOT PROVIDED |
| School for the Blind | NM School for the Blind & Visually Impaired | Trades, Installation & Repair | Engineering, Construction & Manufacturing |
| School for the Deaf | NM School for the Deaf | Construction | Engineering, Construction & Manufacturing |
| Southwestern Indian Polytechnic Institute | | Geospatial Information Technology (GIS) AAS | Energy and Environmental Technologies |

**ATTACHMENT 4**

# CARL D. PERKINS VOCATIONAL AND TECHNICAL EDUCATION ACT
## 2007-2008 Tentative Allocations

| SECONDARY SCHOOLS | |
|---|---|
| ALAMOGORDO PUBLIC SCHOOLS | $82,446 |
| ALBUQUERQUE PUBLIC SCHOOLS | $985,785 |
| BELEN CONSOLIDATED SCHOOLS | $56,844 |
| BERNALILLO PUBLIC SCHOOLS | $63,636 |
| CARLSBAD MUNICIPAL SCHOOLS | $63,911 |
| CENTRAL CONSOLIDATED SCHOOLS | $115,660 |
| CLOVIS MUNICIPAL SCHOOLS | $102,297 |
| COBRE CONSOLIDATED SCHOOLS | $21,981 |
| DEMING PUBLIC SCHOOLS | $79,822 |
| ESPANOLA MUNICIPAL SCHOOLS | $77,061 |
| FARMINGTON MUNICIPAL SCHOOLS | $106,969 |
| GADSDEN INDEPENDENT SCHOOLS | $228,872 |
| GALLUP-MCKINLEY COUNTY PUB SCHLS | $231,384 |
| GRANTS-CIBOLA COUNTY SCHOOLS | $67,604 |
| HOBBS MUNICIPAL SCHOOLS | $80,120 |
| LAS CRUCES PUBLIC SCHOOLS | $268,433 |
| LAS VEGAS CITY PUBLIC SCHOOLS | $28,703 |
| LORDSBURG MUNICIPAL SCHOOLS | $10,710 |
| LOS LUNAS PUBLIC SCHOOLS | $92,758 |
| LOVINGTON PUBLIC SCHOOLS | $28,953 |
| PORTALES MUNICIPAL SCHOOLS | $36,982 |
| RIO RANCHO PUBLIC SCHOOLS | $61,179 |
| ROSWELL INDEPENDENT SCHOOLS | $125,973 |
| SANTA FE PUBLIC SCHOOLS | $150,181 |
| SILVER CITY CONSOLIDATED SCHLS | $37,413 |
| SOCORRO CONSOLIDATED SCHOOLS | $27,148 |
| TAOS MUNICIPAL SCHOOLS | $41,968 |
| TRUTH OR CONSEQUENCES SCHOOLS | $24,964 |
| TUCUMCARI PUBLIC SCHOOLS | $15,848 |
| SUBTOTAL SECONDARY SCHOOLS | $3,315,605 |

| BIA SCHOOLS | |
|---|---|
| Alamo Navajo | $24,739 |
| Navajo Preparatory | $28,921 |
| SUBTOTAL BIA SCHOOLS | $53,660 |

| RECs | |
|---|---|
| Pecos Valley REC | $24,244 |
| Region II REC | $33,570 |
| Region IV REC | $51,614 |
| Region IX | $76,739 |
| SUBTOTAL RECs | $186,167 |

| OTHER | |
|---|---|
| **TECH PREP** | |
| ENMU ROSWELL | $201,758 |
| LAS CRUCES PUBLIC SCHOOLS | $483,972 |
| PECOS VALLEY REGIONAL COOP #8 | $106,991 |
| SUBTOTAL TECH PREP | $792,721 |

| STATE INSTITUTIONS | |
|---|---|
| SCHOOL FOR THE VISUALLY IMPAIRED | $30,000 |
| SCHOOL FOR THE DEAF | $30,000 |
| SUBTOTAL STATE INSTITUTIONS | $60,000 |

| LEADERSHIP |
|---|
| TBD |

| SECONDARY SCHOOLS | |
|---|---|
| **HIGH SCHOOLS THAT WORK** | |
| Albuquerque Public Schools: Cibola High School | $20,000 |
| Bernalillo Public Schools: Bernalillo High School | $20,000 |
| Central Consolidated Schools: Career Prep High School | $20,000 |
| Dexter Consolidated Schools: Dexter High School | $20,000 |
| Farmington Municipal Schools: Farmington High School | $20,000 |
| Farmington Municipal Schools: Piedra Vista High School | $20,000 |
| Grants Cibola County Schools: Laguna-Acoma High School | $20,000 |
| Lake Arthur Municipal Schools: Lake Arthur High School | $20,000 |
| Las Vegas City Schools: Robertson High School | $20,000 |
| Loving Municipal Schools: Loving High School | $20,000 |
| Lovington Municipal Schools: Lovington High School | $20,000 |
| Pecos Independent Schools: Pecos High School | $20,000 |
| SUBTOTAL HIGH SCHOOLS THAT WORK | $240,000 |

| POSTSECONDARY SCHOOLS | |
|---|---|
| **UNIVERSITIES** | |
| Western NM Univ. | $67,456 |

| BRANCH COMMUNITY COLLEGES | |
|---|---|
| NMSU ALAMOGORDO | $85,852 |
| NMSU CARLSBAD | $64,884 |
| NMSU DONA ANA | $592,659 |
| NMSU GRANTS | $31,255 |
| UNM GALLUP | $163,594 |
| UNM TAOS | $80,314 |
| UNM VALENCIA | $148,165 |
| SUBTOTAL BRANCH COMMUNITY COLLEGES | $1,166,723 |

| INDEPENDENT COMMUNITY COLLEGES | |
|---|---|
| Central NM CC | $1,300,645 |
| Clovis Community College | $181,596 |
| Luna Community College | $65,280 |
| Mesalands Technical College | $15,430 |
| NM Junior College | $76,753 |
| Northern NM Community College | $145,989 |
| San Juan College | $314,529 |
| Santa Fe Community College | $130,757 |
| SUBTOTAL INDEPENDENT COMMUNITY COLLEGES | $2,230,979 |

| BIA INSTITUTIONS | |
|---|---|
| SIPI | $92,183 |

**SUMMARY OF 2007-2008 TENTATIVE ALLOCATIONS**

| | |
|---|---|
| Secondary Schools (includes BIA Schools and RECs) | $3,555,432 |
| High Schools That Work | $240,000 |
| Postsecondary Institutions | $3,557,341 |
| State Institutions | $60,000 |
| Tech Prep Grants | $792,721 |
| **TOTAL ALLOCATIONS AS OF 7/18/2007** | **$8,205,494** |

Source: PED: emailed 8/7/2007

LESC: 8/7/2007